

REMARKS

Claims 1-26 are pending in the application. In the non-final Office Action of April 21, 2006, the Examiner made the following disposition:

- A.) Rejected claims 1-3 and 10-15 under 35 U.S.C. 102(e) as allegedly being anticipated by *Crockett*.
- B.) Rejected claims 4-6 and 16-26 under 35 U.S.C. 103(a) as allegedly being unpatentable over *Crockett*.
- C.) Rejected claims 7-9 under 35 U.S.C. 103(a) as allegedly being unpatentable over *Crockett* in view of *Smith*.

Applicants respectfully traverse the rejections and addresses the Examiner's disposition below.

Claims 1, 10, 13, 16, 23, and 25 each have been amended to claim that the sound quality featuring quantities are selected from the group consisting of the short-term power spectrum coefficients of the acoustic signals, short-term cepstrum coefficients of the acoustic signals, and coefficients obtained on Karhunen-Loeve transforming the short-term power spectrum coefficients.

Claims 4 and 18 have been canceled.

- A.) Rejected claims 1-3 and 10-15 under 35 U.S.C. 102(e) as allegedly being anticipated by *Crockett*.

Applicants respectfully disagree with the rejection.

Applicants' independent claims 1, 10, and 13, each as amended, each claim subject matter relating to calculating short-term amplitudes in acoustic signals, at an interval of a preset time length. Sound quality featuring quantities are extracted from the acoustic signals, at an interval of the preset time length. The sound quality featuring quantities quantify the sound quality of the acoustic signals. The sound quality featuring quantities are selected from the group consisting of the short-term power spectrum coefficients of the acoustic signals, short-term cepstrum coefficients of the acoustic signals, and coefficients obtained on Karhunen-Loeve transforming the short-term power spectrum coefficients. Therefore, the claimed invention both calculates short-term amplitudes in acoustic signals and extracts sound quality featuring quantities from the acoustic signals.

This is clearly unlike *Crockett*, which fails to disclose or suggest extracting sound quality featuring quantities as claimed by Applicants. As acknowledged by the Examiner, *Crockett* fails

to teach extracting sound quality featuring quantities that are selected from the group consisting of the short-term power spectrum coefficients of the acoustic signals, short-term cepstrum coefficients of the acoustic signals, and coefficients obtained on Karhunen-Loeve transforming the short-term power spectrum coefficients. Instead, *Crockett* uses a filterbank to perform a spectral analysis. [*Crockett* 0034]. Specifically, *Crockett* uses M-point Hanning, Kaiser-Bessel, or other filter to perform the spectral analysis. [*Crockett* 0048].

The Examiner argues that *Crockett*'s use of a filterbank suggests Applicants' claimed extraction of sound quality featuring quantities. Applicants disagree. *Crockett*'s filterbank is merely one or more filters. *Crockett*'s filterbank does not extract sound quality featuring quantities that are selected from the group consisting of the short-term power spectrum coefficients of the acoustic signals, short-term cepstrum coefficients of the acoustic signals, and coefficients obtained on Karhunen-Loeve transforming the short-term power spectrum coefficients. None of these claimed elements are disclosed or even suggested by *Crockett*.

For at least this reason, *Crockett* fails to disclose or suggest claims 1, 10, and 13.

Claims 2, 3, 11, 14, and 15 depend directly or indirectly from claims 1, 10, or 13 and are therefore allowable for at least the same reasons that claims 1, 10, and 13 are allowable.

Applicants respectfully submit the rejection has been overcome and request that it be withdrawn.

B.) Rejected claims 4-6 and 16-26 under 35 U.S.C. 103(a) as allegedly being unpatentable over *Crockett*:

Applicants respectfully disagree with the rejection.

Applicants' independent claim 1 is allowable over *Crockett* as discussed above. Claims 16, 23, and 25 also claim subject matter relating to sound quality featuring quantities that are selected from the group consisting of the short-term power spectrum coefficients of the acoustic signals, short-term cepstrum coefficients of the acoustic signals, and coefficients obtained on Karhunen-Loeve transforming the short-term power spectrum coefficients.

Thus, for at least this reason, *Crockett* also fails to disclose or suggest claims 16, 23, and 25.

Claims 5, 6, 17, 19-22, and 24 depend directly or indirectly from claims 1, 16, 23, or 25 and are therefore allowable for at least the same reasons that claims 1, 16, 23, and 25 are allowable.

Claims 4 and 18 have been canceled.

Applicants respectfully submit the rejection has been overcome and request that it be withdrawn.

C.) Rejected claims 7-9 under 35 U.S.C. 103(a) as allegedly being unpatentable over *Crockett* in view of *Smith*:

Applicants respectfully disagree with the rejection.

Applicants' independent claim 1 is allowable over *Crockett* as discussed above. *Smith* still fails to disclose or suggest subject matter relating to sound quality featuring quantities that are selected from the group consisting of the short-term power spectrum coefficients of the acoustic signals, short-term cepstrum coefficients of the acoustic signals, and coefficients obtained on Karhunen-Loeve transforming the short-term power spectrum coefficients. Therefore, *Crockett* in view of *Smith* still fails to disclose or suggest claim 1.

Claims 7-9 depend directly or indirectly from claim 1 and are therefore allowable for at least the same reasons that claim 1 is allowable.

Applicants respectfully submit the rejection has been overcome and request that it be withdrawn.

CONCLUSION

In view of the foregoing, it is submitted that claims 1-3, 5-17, and 19-26 are patentable. It is therefore submitted that the application is in condition for allowance. Notice to that effect is respectfully requested.

Respectfully submitted,

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